

# - August Harrell -

University of Oregon: Earth Sciences PhD Program

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## ❖ Education

- **University of Oregon** *September 2022 - present*  
Ph.D. Student & Graduate Employee  
Department of Earth Sciences
- **Georgia Institute of Technology** *January 2020 - May 2022*  
Bachelor's Degree with Highest Honors  
Department of Earth and Atmospheric Sciences  
Institutional GPA: 3.90
- **Georgia State University** *August 2017 - December 2019*  
Associate's Degree with Highest Honors  
Department of Mathematics  
Institutional GPA: 4.00

## ❖ Research Experience

- Dr. Matthew Polizzotto - [mpolizzo@uoregon.edu](mailto:mpolizzo@uoregon.edu) *September 2022 - present*  
I am currently in the process of developing a background understanding of soil and water geochemistry and pursuing questions that may inspire my future projects  
<https://www.soilwaterlab.org/>
- Dr. Yanzhi Tang - [yuanzhi.tang@eas.gatech.edu](mailto:yuanzhi.tang@eas.gatech.edu) *August 2021 - June 2022 [Undergraduate]*  
**Project focus:** heavy metal concentrations and speciation in coal fly ash.  
**Description:** shadowing graduate student Estefania Garcia, learning to perform various lab procedures independently, and helping process data  
**Techniques:** use of various extraction techniques (including sequential extraction, total digestion, and EPA toxicity characteristic leaching procedure) to prepare samples for analysis in ICP-OES  
**Experience with:** acids, serological pipettes, variable volume single chamber pipettes, syringe filters, centrifuge, agitator, oven, ICP-OES & argon tanks  
<https://tang.eas.gatech.edu/>

## ❖ Teaching Experience

Dr. James Watkins - [watkins4@uoregon.edu](mailto:watkins4@uoregon.edu)

Winter Term 2022

**Role:** Teaching Assistant

**Class:** EARTH 101 Exploring Planet Earth Lab - 3 Sections

**Responsibilities:** in-person teaching, pre-lab lecture (~5min), supervision of lab, answering student questions in and outside of lab, office hours, grading of labs with feedback, exam proctoring, exam grading; experience working with Accessible Education Center

Dr. Meg Grantham - [meg.grantham@eas.gatech.edu](mailto:meg.grantham@eas.gatech.edu)

August 2020 - May 2021 [Undergraduate]

**Role:** Teaching Assistant

**Class:** EAS 2600 Earth Processes Lab - 2 Sections

**Responsibilities:** remote teaching, pre-lab lecture (~20min), supervision of lab, answering student questions in and outside of lab, office hours, grading of labs with feedback, critique of lab format and difficulty; experience teaching alone and with a second teaching assistant

## ❖ Field Experience

Dr. Karl Lang - [karl.lang@eas.gatech.edu](mailto:karl.lang@eas.gatech.edu)

Spring 2022 [Undergraduate]

Dr. Samantha Wilson - [samantha.wilson@eas.gatech.edu](mailto:samantha.wilson@eas.gatech.edu)

**Class:** EAS 4814 Geophysical Field Methods - 4 credits

**Description:** Project-based field work class focused on Harvard Hill and surrounding faults in the Mojave Desert. Use of geophysical surveying techniques including seismic imaging, GPR imaging, survey grade GPS readings, and magnetometer readings.

Experience in processing and interpreting collected data. Identification of local geologic units and creation of geologic map of field area.

## ❖ Additional Skills

- **Software:** MatLab, Excel, Google Earth Pro
- **Field:** Brunton use for navigation and geological measurements, Geophysical field instruments (see field experience), Topographic maps, Rock/Mineral ID, Outdoor rock climbing, Fire building, Camping, Live animal trapping

## ❖ Relevant Undergraduate Courses

**Mineral Surface Geochemistry** - mineral structure, mineral-water interface, microbial interaction

**Environmental Geochemistry** - mineral chemistry and phases, solubility, aqueous speciation

**Lab** - analysis of ions in water samples taken on campus using a Mass Spectrometer

**Geophysical Field Methods** - Field work project-based class focused on geophysical techniques

**Climate & Global Change** - radiative forcing, climate feedbacks, carbon cycle, climate proxies

**Atmospheric Chemistry** - models, transport, greenhouse gasses, aerosols, O<sub>3</sub> CLO<sub>x</sub> HO<sub>x</sub> NO<sub>x</sub> cycles

**Introduction to Oceanography** - ocean chemistry, geophysics, currents and circulation, ENSO

**Deep Oceans** - deep water circulation, biology, hydrothermal vents, sustainability  
**Geologic History** - dating techniques, history of scientific thought, Earth history by period  
**Quantitative Techniques** - use of MatLab for various statistical analyses of environmental data  
**Other Courses:** Intro Chemistry I & II, Intro Physics I & II, Thermodynamics, Earth Processes

## ❖ Academic Achievements

- **UO Lokey Graduate Science Award:** Fall 2022 UO
- **Zell Miller Merit Scholarship:** Fall 2019 - present GSU & GaTech
- **Dean's List:** Spring 2021, Fall 2021 GaTech
- **EAS Student of the Month:** June 2021 Gatech
- **Faculty Honors:** Fall 2020 GaTech
- **President's List:** Fall 2017 - Fall 2019 GSU

## ❖ Other Experience

- **Carbon Reduction Challenge:** Lead by Dr. Kim Cobb - [kim.cobb@eas.gatech.edu](mailto:kim.cobb@eas.gatech.edu)  
Worked with engineers for Peachtree City and crafted a plan, in powerpoint and written form, for addition of solar panels onto the city hall building; wrote article for Peachtree City newsletter on carbon reduction through LED lights; calculated projected carbon savings for these actions
- **Alaska Field Work:** Shadowing graduate students from University of Alaska  
Live trapping and temporary care of arctic ground squirrels in the Brooke's Range
- **Conserve School:** High school semester program in sustainability  
Boarding school close to Land O' Lakes, Wisconsin on the edge of Sylvania Wilderness; All classes focused on sustainability including AP Environmental Science, Outdoor Skills, History, Literature, and Ethics; Learned to use cross-country skis and snowshoes
- **Other Work:**  
Starbucks - Barista (2021); Tin Drum Asian Kitchen - Front of House (2020); Human Rights Campaign - Canvasser (2019); Pritchett Ball & Wise LLC - Research Assistant (2017)